

CLAIMS

What is claimed is:

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1. A primary spectacle frame assembly comprising:

an eyerim for containing a first and second of primary spectacle frame lenses;

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a first end piece and a second end piece attached to and extending from a first outer side and a second outer side of said eyerim;

a first rimblock and a second rimblock designed to allow for the opening and closing of said eyerim for insertion and/or replacement of said primary spectacle frame lenses attached to both the outer sides of said eyerim and the rear side of said end pieces such that said first rimblock and said second rimblock are not visible from the front side of said primary spectacle frame assembly;

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a bridge attached to and connecting the inner sides of said eyerim;

a first temple attached to and extending from said first end piece; and

a second temple attached to and extending from said second end piece.

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2. The primary spectacle frame assembly of claim 1 wherein said primary spectacle frame assembly includes a first and second nose piece attached to the inner sides of said eyerim below said bridge.

3. The primary spectacle frame assembly of claim 1 wherein said eyerim is constructed of plastic.

4. The primary spectacle frame assembly of claim 1 wherein said eyerim is
5 constructed of metal.

5. The primary spectacle frame assembly of claim 1 wherein said two primary spectacle frame lenses are constructed of transparent material.

10 6. The primary spectacle frame assembly of claim 1 wherein said two primary spectacle frame lenses are prescription lenses.

7. The primary spectacle frame assembly of claim 1 wherein said two primary spectacle frame lenses are constructed of a tinted material.

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8. An auxiliary clip-on assembly comprising:
a plurality of auxiliary clip-on lenses,
a rear vertical surface; and
a first and second end piece retainer.

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9. The auxiliary clip-on assembly of claim 8 wherein said auxiliary clip-on assembly is constructed of a flexible material.

10. The auxiliary clip-on assembly of claim 8 wherein said auxiliary clip-on assembly possesses a rearwardly concave arc in the horizontal plane.

11. The auxiliary clip-on assembly of claim 8 wherein said plurality of auxiliary clip-
5 on lenses are constructed of a tinted material.

12. The auxiliary clip-on assembly of claim 8 wherein said plurality of auxiliary clip-on lenses are prescription lenses.

10 13. The auxiliary clip-on assembly of claim 8 wherein said plurality of auxiliary clip-on lenses are safety lenses.

14. The auxiliary clip-on assembly of claim 8 wherein said first and second end piece retainers are constructed of plastic.

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15. The auxiliary clip-on assembly of claim 8 wherein said plurality of auxiliary clip-on lenses consists of a single auxiliary clip-on lens.

16. The auxiliary clip-on assembly of claim 8 wherein said first and second end piece
20 retainers are affixed to the rear vertical surface of said single auxiliary clip-on lens.

17. The auxiliary clip-on assembly of claim 16 wherein said first and second end piece retainers are affixed to the rear vertical surface of said single auxiliary clip-on lens by screws.

5 18. The auxiliary clip-on assembly of claim 16 wherein said first and second end piece retainers are affixed to the rear vertical surface of said single auxiliary clip-on lens by an adhesive means.

10 19. The auxiliary clip-on assembly of claim 16 wherein said first and second end piece retainers are affixed to the rear vertical surface of said single auxiliary clip-on lens by welding.

20. The auxiliary clip-on assembly of claim 8 wherein said plurality of auxiliary clip-on lenses consists of two auxiliary clip-on lenses enclosed in an auxiliary clip-on frame.

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21. The auxiliary clip-on assembly of claim 20 wherein said first and second piece retainers are affixed to the rear vertical surface of said auxiliary clip-on frame by screws.

20 22. The auxiliary clip-on assembly of claim 20 wherein said first and second end piece retainers are affixed to the rear vertical surface of said auxiliary clip-on frame by an adhesive means.

23. The auxiliary clip-on assembly of claim 20 wherein said first and second end piece retainers are affixed to the rear vertical surface of said auxiliary clip-on frame by welding.

5 24. The auxiliary clip-on assembly of claim 20 wherein said auxiliary clip-on frame is constructed of plastic.

25. The auxiliary clip-on assembly of claim 20 wherein said auxiliary clip-on frame is constructed of metal.

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26. The auxiliary clip-on assembly of claim 20 wherein said auxiliary clip-on assembly is identical in size to the primary spectacle frame assembly.

15 27. The auxiliary clip-on assembly of claim 20 wherein said auxiliary clip-on assembly is identical in shape to the primary spectacle frame assembly.

28. The auxiliary clip-on assembly of claim 20 wherein said auxiliary clip-on assembly is of a differing size than the primary spectacle frame assembly.

20 29. The auxiliary clip-on assembly of claim 20 wherein said auxiliary clip-on assembly is of a differing shape than the primary spectacle frame assembly.

30. The auxiliary clip-on assembly of claim 20 wherein said auxiliary clip-on assembly is identical in shape and size to the primary spectacle frame assembly.

31. The auxiliary clip-on assembly of claim 20 wherein said auxiliary clip-on
5 assembly is of a differing shape and size than the primary spectacle frame assembly.

32. The auxiliary clip-on assembly of claim 8 wherein the distance between said first and second end piece retainers matches the distance of a first and a second end piece attached to said primary spectacle frame assembly.

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33. An eyeglass device comprising:

a primary spectacle frame assembly for supporting primary lenses therein, said primary spectacle frame assembly including two side portions each having an end piece extended therefrom for pivotally coupling a temple thereto, said primary spectacle frame assembly
15 including a front portion, a rear portion, an upper portion, a lower portion, a top portion, a bottom portion and two side portions.

34. The eyeglass device of claim 33 further comprising:

an auxiliary clip-on assembly for supporting auxiliary clip-on lenses therein, said
20 auxiliary clip-on assembly frame including a front portion, a rear portion, an upper portion, a lower portion, two side portions, two lens portions, a top portion, a bottom portion and a bridge portion; and a first and second end piece retainer attached to said auxiliary clip-on assembly.

35. The eyeglass device of claim 34 wherein said first and second end piece retainers are u shaped.

5 36. The eyeglass device of claim 34 wherein said first and second end piece retainers extend rearwardly.

37. The eyeglass device of claim 34 wherein said first and second end piece retainers are secured to the rear portion of said auxiliary clip-on assembly.

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38. The eyeglass device of claim 34 wherein said auxiliary clip-on assembly possess a rearwardly concave arcuate shape.

39. The eyeglass device of claim 34 wherein said first and second end piece retainers
15 possess a rearwardly concave arcuate shape.

40. The eyeglass device of claim 34 wherein said auxiliary clip-on assembly is one piece.

20 41. The eyeglass device of claim 34 wherein said auxiliary clip-on assembly possesses a torsion bar.

42. The eyeglass device of claim 34 wherein said torsion bar is located on the front of said auxiliary clip-on assembly.

43. The eyeglass device of claim 34 wherein said auxiliary clip-on assembly engages
5 and is stably supported on said primary spectacle frame assembly.

44. The eyeglass device of claim 34 wherein said first and second end piece retainers engage and are stably supported on said primary spectacle frame assembly.

10 45. The eyeglass device of claim 34 wherein said first and second end piece retainers possess an upper and a lower vertical surface.

46. The eyeglass device of claim 34 wherein said first and second end piece retainers engage and are stably supported on said outer sides of said primary spectacle frame
15 assembly.

47. The eyeglass device of claim 34 wherein said first and second end piece retainers engage and are stably supported on said outer side of said end pieces of said primary spectacle frame assembly.

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48. The eyeglass device of claim 34 wherein said first and second end piece retainers engage and are stably supported on said outer side of said eyerim of said primary spectacle frame assembly.

49. The eyeglass device of claim 34 wherein said first and second end piece retainers engage and are stably supported on said upper side of said projection of said primary spectacle frame assembly.

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50. The eyeglass device of claim 34 wherein said first and second end piece retainers stably restrain said auxiliary clip-on assembly to said primary spectacle frame assembly in the horizontal plane.

10 51. The eyeglass device of claim 34 wherein said first and second end piece retainers stably restrain said auxiliary clip-on assembly to said primary spectacle frame assembly in the vertical plane.

15 52. The eyeglass device of claim 34 wherein said first and second end piece retainers stably restrain said auxiliary clip-on assembly to said primary spectacle frame assembly in all planes.

20 53. The eyeglass device of claim 34 wherein said rearwardly concave arcuate shape of said auxiliary clip-on assembly stably restrains said auxiliary clip-on assembly to said primary spectacle frame assembly in the horizontal plane.

54. The eyeglass device of claim 34 wherein said first and second end piece retainers and said rearwardly concave arcuate shape of said auxiliary clip-on assembly stably

restrain said auxiliary clip-on assembly to said primary spectacle frame assembly in the horizontal plane.

55. The eyeglass device of claim 34 wherein said first and second end piece retainers
5 and said rearwardly concave arcuate shape of said auxiliary clip-on assembly stably
restrain said auxiliary clip-on assembly to said primary spectacle frame assembly in the
vertical plane.

56. The eyeglass device of claim 34 wherein said first and second end piece retainers
10 and said rearwardly concave arcuate shape of said auxiliary clip-on assembly stably
restrain said auxiliary clip-on assembly to said primary spectacle frame assembly in all
planes.

57. The eyeglass device of claim 34 wherein said primary spectacle frame assembly is
15 fabricated from a rigid material so that said primary spectacle frame assembly may not be
deformed and remains rigid upon engagement.

58. The eyeglass device of claim 34 wherein said auxiliary clip-on assembly is
fabricated from a resiliently compliant material so that said auxiliary clip-on assembly
20 may be deformed to allow flexure upon engagement.

59. The eyeglass device of claim 34 wherein a first outer end and a second outer end
of said first and second end piece retainers produces no flexure.

60. The eyeglass device of claim 34 wherein the width of an inner groove of said first and second end piece retainers is substantially the same as the vertical width of said end pieces.

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61. The eyeglass device of claim 34 wherein an inner groove of said first and second end piece retainer is greater than the vertical width of said end pieces.

62. The eyeglass device of claim 34 further comprising a multiplicity of
10 interchangeable auxiliary clip-on frames.

63. The eyeglass device of claim 34 wherein said auxiliary clip-on assembly does not contact said primary spectacle frame assembly except at the engaging surfaces of said end piece retainers.

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64. The eyeglass device of claim 34 wherein said primary spectacle frame assembly contains ophthalmic lens and said auxiliary clip-on assembly contains tinted lenses.

65. The eyeglass device of claim 34 wherein said primary spectacle frame assembly
20 contains ophthalmic lens and said auxiliary clip-on assembly contains sunglass lenses.

66. A method of attachment of a first and second end piece retainer attached to an auxiliary frame to a first and second eyerim of a primary spectacle frame assembly comprising:

attaching said first end piece retainer to a first end piece attached to said primary
5 spectacle frame assembly; and

applying a rearward flexure to the front-center portion of said auxiliary clip-on
assembly in the horizontal frame the auxiliary clip-on assembly and attaching said
second end piece retainers to a second end piece attached to said primary
10 spectacle frame assembly, such that the grooves in said first and second end piece
retainers fit over and around said first and second end piece.

67. The method of claim 66 wherein said auxiliary clip-on assembly does not contact
said primary spectacle frame assembly except at the engaging portions of the end piece
15 retainers.

68. The method of claim 66 wherein said end piece retainers attach to said eyerims.

69. A method of removal of a first and second end piece retainer attached to an
20 auxiliary clip-on assembly possessing a bridge portion from a first and a second end piece
attached to eyerims of a primary spectacle frame assembly comprising:

exerting a horizontal force to the center-front portion of said bridge portion of
said auxiliary clip-on assembly in the direction of the user,

grasping one end of said auxiliary clip-on assembly; and
exerting a force in the direction away from the user.

70. The method of removal of a first and second end piece retainer attached to an
5 auxiliary clip-on assembly possessing a bridge portion from a pair of end pieces attached
to eyerims of a primary spectacle frame assembly wherein either end of the auxiliary clip-
on assembly can be grasped.

71. An auxiliary clip-on assembly comprising:
10 a single member lens possessing a front vertical surface and a rear vertical
surface;
a plurality of end piece retainers; and
a plurality of fasteners wherein said plurality of end piece retainers are mounted
on said rear surface of said single member lens and said fasteners are mounted on
15 said front surface of said single member lens and wherein said fasteners couple
said end piece retainers to said lens by penetrating said lens.

72. The auxiliary clip-on assembly of claim 71 further comprising a torsion bar.

20 73. The auxiliary clip-on assembly of claim 72 wherein said torsion bar is mounted
on said front vertical surface of said single member lens.

74. The auxiliary clip-on assembly of claim 73 wherein said torsion bar is mounted on said front vertical surface of said single member lens by glue.

75. The auxiliary clip-on assembly of claim 73 wherein said torsion bar is mounted
5 on said front vertical surface of said single member lens by welding.

76. The auxiliary clip-on assembly of claim 73 wherein said torsion bar is mounted on said front vertical surface of said single member lens by brazing.

10 77. The auxiliary clip-on assembly of claim 73 wherein said torsion bar is mounted on said front vertical surface of said single member lens by screws.

78. The auxiliary clip-on assembly of claim 71 wherein said a single member lens is polarized.

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79. An auxiliary clip-on assembly comprising:

an auxiliary frame for housing a pair of lenses;

a first and a second end piece retainer, said first and said second end piece retainers each comprising a vertically disposed member attached to said auxiliary frame
20 and a first and second horizontally disposed members attached to said vertically disposed member.

80. The auxiliary clip-on assembly of claim 79 wherein said auxiliary frame attaches to a primary spectacle frame.

81. The auxiliary clip-on assembly of claim 79 wherein said first and second
5 horizontally disposed members of said first and second end piece retainers attach to said primary spectacle frame.

82. The auxiliary clip-on assembly of claim 79 wherein said first and second horizontally disposed members of said first and second end piece retainers attach to a first
10 and a second end piece attached to said primary spectacle frame.

83. The auxiliary clip-on assembly of claim 79 wherein said first and second horizontally disposed members of said first and second end piece retainers are arcuate.

15 84. The auxiliary clip-on assembly of claim 79 wherein said first and second horizontally disposed members of said first and second end piece retainers of said auxiliary frame attach to a first and second eyerim of said primary spectacle frame.

85. The auxiliary clip-on assembly of claim 79 wherein said vertically disposed
20 members of said first and second end piece retainers are arcuate.

86. The auxiliary clip-on assembly of claim 79 wherein said first and second horizontally disposed members of said first and second end piece retainers possess vertically disposed channels.

5 87. The auxiliary clip-on assembly of claim 86 wherein said vertically disposed channels are supported on said first and second eyerim of said primary frame upon engagement.

88. The auxiliary clip-on assembly of claim 86 wherein a rearmost edge of said first
10 and second end piece retainers extends rearward of the rear edge of said primary frame upon engagement.

89. The auxiliary clip-on assembly of claim 86 wherein said rearmost edge of said
15 first and second end piece retainers extends rearward of said rearmost edge of said first and second end pieces upon engagement.

90. The auxiliary clip-on assembly of claim 86 wherein said first and second end piece retainers are respectively supported on said first and second end pieces and said
20 vertically disposed members of said first and second end piece retainers do not contact said first and second end pieces attach to said primary spectacle frame.

91. The auxiliary clip-on assembly of claim 81 wherein said pair of end piece retainers are transparent.

92. An eyeglass device comprising:

5 a primary frame for supporting primary lenses therein; the primary frame including two side portions, a front portion and a rear portion; and the primary frame including a first and a second rimblock respectively having a horizontal surface and being secured to one of said side portions of said primary spectacle frame;

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and an auxiliary frame for supporting auxiliary lenses therein, and for disposing in front of the primary spectacle frame, the auxiliary frame including an auxiliary rear portion, wherein the auxiliary spectacle frame further includes two end piece retainers each secured to said auxiliary rear portions and having a horizontal surface for coupling a corresponding horizontal surface of one of said rimblocks so as to secure the auxiliary frame to the primary frame.

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93. The eyeglass device of claim 92 wherein said two end piece retainers originate from the front portion and extend beyond said two side portions and said rear portion.

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